#### IN THE CLAIMS:

Please amend Claims 1, 3, 6, 8, 9, 13, 15, 16, 18, 21, 22, 27, 34, 36, 39, 42, 43, 44, 46, 48-50, 52-55, 57, and 59-66 as follows. For your convenience, all the pending claims are reproduced below.

1. (Currently Amended) A developing device for developing an electrostatic latent image formed on an electrophotographic photosensitive member, said developing device being usable with a main assembly of an electrophotographic image forming apparatus, said developing device comprising:

a developing member for supplying a developer to the electrophotographic photosensitive member for developing the electrostatic latent image formed on said the electrophotographic photosensitive member;

a first electrode disposed along a length of said developing member; and

a second electrode disposed along a length of said developing member wherein said first electrode is disposed such that at least a lower end thereof takes a position above said first second electrode when said developing device is mounted to the main assembly of the electrophotographic image forming apparatus, wherein said second electrode is disposed along a length of said developing member;

wherein an electrical signal is generated in accordance with an electrostatic capacity between said first electrode and second electrode when said first electrode or second electrode is supplied with a voltage from the main assembly of said electrophotographic image forming apparatus, and is measured by the main assembly of the electrophotographic image forming apparatus to detect a remaining amount of the developer.

3. (Currently Amended) A device according to Claim 1, wherein said second first electrode and a frame supporting said first second electrode constitute a recess extending parallel to a developing device frame, wherein said recess opens downward.

## 4. (Canceled)

5. (Previously Amended) A device according to Claim 3, wherein one and the other of said first and second electrodes are plate-like and rod-like electrodes.

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6. (Currently Amended) A developing device for developing an electrostatic latent image formed on an electrophotographic photosensitive member, said developing device being usable with a main assembly of an electrophotographic image forming apparatus, said developing device comprising:

a developing member for supplying a developer to said the electrophotographic photosensitive member to develop the electrostatic latent image formed on said the electrophotographic photosensitive member;

a first electrode disposed along a length of said developing member;

a second electrode disposed along a length of said developing member, wherein said first electrode is disposed such that at least a lower end thereof takes a position above said first second electrode when said developing device is mounted to the main assembly of the electrophotographic image forming apparatus, wherein said second electrode is disposed along a length of said developing member;

a third electrode disposed between said first electrode and said developing member;

a first electrical contact for receiving, from the main assembly of said the electrophotographic image forming apparatus, a voltage to be applied to said first electrode when

said developing device is mounted to the main assembly of said the electrophotographic image forming apparatus;

a second electrical contact for receiving, from the main assembly of said the electrophotographic image forming apparatus, a voltage to be applied to said developing member when said developing device is mounted to the main assembly of said the electrophotographic image forming apparatus; and

a third electrical contact for transmitting, to the main assembly of said the electrophotographic image forming apparatus, an electrical signal corresponding at least to electrostatic capacities between said first electrode and second electrode and between said developing member and said third electrode, when the voltages are applied to said first electrode and to said developing member, to detect a remaining amount of the developer by the main assembly of the electrophotographic image forming apparatus.

- 8. (Currently Amended) A device according to Claim 6, wherein said second first electrode and a frame supporting said first second electrode constitute a recess extending parallel to said developing member, said recess opening downward.
- 9. (Currently Amended) A device according to Claim 6 or 8, wherein said third electrode is a member which is integral with or separate from said first second electrode, and is disposed along a length of said developing member.
- 10. (Previously Amended) A device according to Claim 9, further comprising a developer chamber having an opening in which said developing member is supported, and a

developer container, connected with said developer chamber, for accommodating the developer, wherein said first, second and third electrodes are provided in said developer chamber.

11. (Previously Amended) A device according to Claim 1 or 6, further comprising developer stirring means for stirring the developer, wherein at least said first and second electrodes are disposed in a moving range of the developer provided by rotation of said developer stirring means.

#### 12. (Canceled)

13. (Currently Amended) A developing device for developing an electrostatic latent image formed on an electrophotographic photosensitive member, said developing device being usable with a main assembly of an electrophotographic image forming apparatus, said developing device comprising:

a developing member for supplying a developer to said the electrophotographic photosensitive member to develop the electrostatic latent image formed on said the electrophotographic photosensitive member;

a first electrode provided so as to exhibit the same potential as said developing member;

a second electrode, wherein said first electrode is disposed such that at least a lower end thereof takes a position above said first second electrode when said developing device is mounted to the main assembly of the electrophotographic image forming apparatus;

a developer path electrode disposed along a path along which the developer accommodated in a developer accommodating portion moves to said developing member;

a first electrical contact for receiving, from the main assembly of said the electrophotographic image forming apparatus, a voltage to be applied to said first electrode when

said developing device is mounted to the main assembly of said the electrophotographic image forming apparatus;

a second <u>electric</u> <u>electrical</u> contact for receiving, from the main assembly of <u>said</u> <u>the</u> electrophotographic image forming apparatus, a voltage to be applied to said developing member when said developing device is mounted to the main assembly of <u>said</u> <u>the</u> electrophotographic image forming apparatus; and

a third electrical contact for transmitting, to the main assembly of the electrophotographic image forming apparatus, an electrical signal corresponding to electrostatic capacities at least between said first electrode and said second electrode and between said developing member and said developer path electrode to detect a remaining amount of the developer by the main assembly of the electrophotographic image forming apparatus.

- 14. (Previously Amended) A device according to Claim 13, wherein said developer path electrode is in the form of a plate extending along the path.
- 15. (Currently Amended) A device according to Claim 13, further comprising a third electrode provided between said first second electrode and said developing member.
- 16. (Currently Amended) A device according to Claim 15, wherein said third electrode is a member which is integral with or separate from said first second electrode, and is disposed along a length of said developing member.
- 17. (Previously Amended) A device according to Claim 13 or 16, wherein said first electrode and said second electrode are arranged along a length of said developing member which is in the form of a developing roller.

- 18. (Currently Amended) A device according to Claim 13, wherein said second first electrode and a frame supporting said first second electrode constitute a recess extending parallel to said developing member, said recess opening downward.
- 19. (Previously Amended) A device according to Claim 13, further comprising an intermediary electrode between said developing member and said developer path electrode.
- 20. (Previously Amended) A device according to Claim 13 or 16, further comprising developer stirring means for stirring the developer, wherein at least said first electrode and second electrode are disposed in a moving range of the developer provided by rotation of said developer stirring means.
- 21. (Currently Amended) A device according to Claim 1, 6 or 13, further comprising a stirring member for stirring the developer accommodated therein, wherein at least a lower end of said second first electrode takes a position above said first second electrode in a direction of movement of the developer provided by said stirring member, when said developing device is mounted to the main assembly of the electrophotographic image forming apparatus.
- 22. (Currently Amended) A process cartridge detachably mountable to a main assembly of an electrophotographic image forming apparatus, comprising:
  - (a) an electrophotographic photosensitive member; and
  - (b) a developing device including:
- a developing member for supplying a developer to said electrophotographic photosensitive member to develop an electrostatic latent image formed on said electrophotographic photosensitive member;

a first electrode disposed along a length of said developing member; and

first electrode is disposed such that at least a lower end thereof takes a position above said first second electrode when said process cartridge is mounted to the main assembly of the electrophotographic image forming apparatus, wherein said second electrode is disposed along a length of said developing member,

wherein an electrical signal is generated in accordance with an electrostatic capacity between said first electrode and second electrode when said first electrode or second electrode is supplied with a voltage from the main assembly of said the electrophotographic image forming apparatus, and is measured by the main assembly of the electrophotographic image forming apparatus to detect a remaining amount of the developer.

# 23. (Canceled)

24. (Previously Amended) A process cartridge according to Claim 22, wherein said first electrode and a frame supporting said second electrode constitute a recess extending parallel to a developing device frame, said recess opening downward.

- 26. (Previously Amended) A process cartridge according to Claim 22 or 24, wherein one and the other of said first and second electrodes are plate-like and rod-like electrodes.
- 27. (Currently Amended) A process cartridge detachably mountable to a main assembly of an electrophotographic image forming apparatus, comprising:
  - (a) an electrophotographic photosensitive member; and
  - (b) a developing device including:

a developing member for supplying a developer to said electrophotographic photosensitive member to develop an electrostatic latent image formed on said electrophotographic photosensitive member;

a first electrode disposed along a length of said developing member;

a second electrode disposed along a length of said developing member, wherein said first electrode is disposed such that at least a lower end thereof takes a position above said first second electrode when said process cartridge is mounted to the main assembly of the electrophotographic image forming apparatus, wherein said second electrode is disposed along a length said developing member;

a third electrode disposed between said first second electrode and said developing member;

a first electrical contact for receiving, from the main assembly of said the electrophotographic image forming apparatus, a voltage to be applied to said first electrode when said process cartridge is mounted to the main assembly of said the electrophotographic image forming apparatus;

a second electrical contact for receiving, from the main assembly of said the electrophotographic image forming apparatus, a voltage to be applied to said developing member when said process cartridge is mounted to the main assembly of said the electrophotographic image forming apparatus; and

a third electrical contact for transmitting, to the main assembly of said the electrophotographic image forming apparatus, an electrical signal corresponding at least to electrostatic capacities between said first electrode and said second electrode and between said developing member and said third electrode, when the voltages are applied to said first electrode and to said developing member, to detect a remaining amount of the developer by the main assembly of the electrophotographic image forming apparatus.

- 29. (Previously Amended) A process cartridge according to Claim 27, wherein said first electrode and a frame supporting said second electrode constitute a recess extending parallel to a developing device frame, said recess opening downward.
- 30. (Previously Amended) A process cartridge according to Claim 27 or 29, wherein said third electrode is a member which is integral with or separate from said second electrode, and is disposed opposed to said developing member.
- 31. (Previously Amended) A process cartridge according to Claim 30, further comprising a developer chamber having an opening in which said developing member is supported, and a developer container, connected with said developer chamber, for accommodating the developer, wherein said first, second and third electrodes are provided in said developer chamber.
- 32. (Previously Amended) A process cartridge according to Claim 27 or 29, further comprising developer stirring means for stirring the developer, wherein at least said first and second electrodes are disposed in a moving range of the developer provided by rotation of said developer stirring means.

- 34. (Currently Amended) A process cartridge detachably mountable to a main assembly of an electrophotographic image forming apparatus, comprising:
  - (a) an electrophotographic photosensitive member; and

(b) a developing device including:

a developing member for supplying a developer to said electrophotographic photosensitive member to develop an electrostatic latent image formed on said the electrophotographic photosensitive member;

a first electrode provided so as to exhibit the same potential as said developing member;

a second electrode, wherein said first electrode is disposed such that at least a lower end thereof takes a position above said first second electrode when said process cartridge is mounted to the main assembly of the electrophotographic image forming apparatus;

a developer path electrode disposed along a path along which the developer accommodated in a developer accommodating portion moves to said developing member;

a first electrical contact for receiving, from the main assembly of said the electrophotographic image forming apparatus, a voltage to be applied to said first electrode when said process cartridge is mounted to the main assembly of said the electrophotographic image forming apparatus;

a second electrical contact for receiving, from the main assembly of said the electrophotographic image forming apparatus, a voltage to be applied to said developing member when said process cartridge is mounted to the main assembly of said the electrophotographic image forming apparatus; and

a third electrical contact for transmitting, to the main assembly of the electrophotographic image forming apparatus, an electrical signal corresponding to electrostatic capacities at least between said first electrode and said second electrode and between said developing member and said developer path electrode to detect a remaining amount of the developer by the main assembly of the electrophotographic image forming apparatus.

- 35. (Previously Amended) A process cartridge according to Claim 34, wherein said developer path electrode is in the form of a plate extending along the path.
- 36. (Currently Amended) A process cartridge according to Claim 34, further comprising a third electrode provided between said first second electrode and said developing member.
- 37. (Previously Amended) A process cartridge according to Claim 36, wherein said third electrode is a member which is integral with or separate from said first electrode, and is disposed along a length of said developing member.
- 38. (Previously Amended) A process cartridge according to Claim 34 or 37, wherein said first electrode and said second electrode are arranged along a length of said developing member which is in the form of a developing roller.
- 39. (Currently Amended) A process cartridge according to Claim 34 or 37, wherein said second first electrode and a frame supporting said first second electrode constitute a recess extending parallel to said developing member, and wherein said recess opens downward.
- 40. (Previously Amended) A process cartridge according to Claim 34, further comprising an intermediary electrode between said developing member and said developer path electrode.
- 41. (Previously Amended) A process cartridge according to Claim 34 or 37, further comprising developer stirring means for stirring the developer, wherein at least said first and

second electrodes are disposed in a moving range of the developer provided by rotation of said developer stirring means.

42. (Currently Amended) A process cartridge according to Claim 22, 27 or 34, further comprising a stirring member for stirring the developer accommodated therein, wherein at least a lower end of said second first electrode takes a position above said first second electrode in a direction of movement of the developer provided by said stirring member, when said developing device is mounted to the main assembly of the electrophotographic image forming apparatus.

43. (Currently Amended) An electrophotographic image forming apparatus for forming an image on a recording material, comprising:

- (a) an electrophotographic photosensitive member;
- (b) an electrostatic latent image forming means for forming an electrostatic latent image on said electrophotographic photosensitive member; and
- (c) a developing device for developing the electrostatic latent image formed on said electrophotographic photosensitive member, said developing device including:

a developing member for supplying the <u>a</u> developer to said electrophotographic : photosensitive member;

a first electrode disposed along a length of said developing member; and

first electrode is disposed such that at least a lower end thereof takes a position above said first second electrode when said developing device is mounted to a main assembly of the said electrophotographic image forming apparatus, wherein said second electrode is disposed along a length of said developing member;

wherein an electrical signal is generated in accordance with an electrostatic capacity between said first electrode and second electrode when said first electrode or second electrode is supplied with a voltage from the main assembly of said electrophotographic image forming apparatus, and is measured by the main assembly of the said electrophotographic image forming apparatus to detect a remaining amount of the developer.

44. (Currently Amended) An electrophotographic image forming apparatus for forming an image on a recording material, wherein a process cartridge is detachably mountable to a main assembly of said electrophotographic image forming apparatus, said electrophotographic image forming apparatus comprising:

(a) mounting means for mounting the process cartridge, said the process cartridge including:

an electrophotographic photosensitive member;

a developing member for supplying a developer to said the electrophotographic photosensitive member to develop an electrostatic latent image formed on said the electrophotographic photosensitive member;

a first electrode disposed along a length of said the developing member; and a second electrode disposed along a length of said developing member, wherein said first electrode is disposed such that at least a lower end thereof takes a position above said the first second electrode when said the process cartridge is mounted to the main assembly of the said electrophotographic image forming apparatus, wherein said the second electrode is disposed along a length of said the developing member;

- (b) electrostatic latent image forming means for forming the electrostatic latent image on said the electrophotographic photosensitive member; and
- (c) developer remaining amount detecting means for detecting a remaining amount of the developer by measuring an electrical signal which is produced by application of a voltage to said the first electrode or second electrode and which corresponds to an electrostatic capacity between said the first electrode and the second electrode.

46. (Currently Amended) A apparatus according to Claim 43 or 44, wherein said the second first electrode and a frame supporting said the first second electrode constitute a recess extending parallel to a developing device frame, said the recess opening downward.

## 47. (Canceled)

48. (Currently Amended) An apparatus according to Claim 43 or 44, wherein one and the other of said the first and second electrodes are plate-like and rod-like electrodes.

- 49. (Currently Amended) An electrophotographic image forming apparatus for forming an image on a recording material, comprising:
  - (a) an electrophotographic photosensitive member;
- (b) an electrostatic latent image forming means for forming an electrostatic latent image on said electrophotographic photosensitive member;
- (c) a developing device for developing the electrostatic latent image formed on said electrophotographic photosensitive member, said developing device including:

a developing member for supplying a developer to said electrophotographic photosensitive member to develop the electrostatic latent image formed on said electrophotographic photosensitive member;

a first electrode disposed along a length of said developing member;

a second electrode disposed along a length of said developing member, wherein said first electrode is disposed such that at least a lower end thereof takes a position above said first second electrode when said developing device is mounted to a main assembly of the said

electrophotographic image forming apparatus, wherein said second electrode is disposed along a length of said developing member;

a third electrode disposed between said first electrode and said developing member;

a first electrical contact for receiving, from the main assembly of said electrophotographic image forming apparatus, a voltage to be applied to said first electrode when said developing device is mounted to the main assembly of said electrophotographic image forming apparatus;

a second electrical contact for receiving, from the main assembly of said electrophotographic image forming apparatus, a voltage to be applied to said developing member when said developing device is mounted to the main assembly of said electrophotographic image forming apparatus; and

a third electrical contact for transmitting, to the main assembly of said electrophotographic image forming apparatus, an electrical signal corresponding at least to electrostatic capacities between said first electrode and <u>said</u> second electrode and between said developing member and said third electrode, when the voltages are applied to said first electrode and to said developing member; and

- (d) developer amount detecting means for detecting an amount of the developer in said developing device on the basis of the electrical signal transmitted from said third electrical contact.
- 50. (Currently Amended) An electrophotographic image forming apparatus for forming an image on a recording material, wherein a process cartridge is detachably mountable to a main assembly of said electrophotographic image forming apparatus, said electrophotographic image forming apparatus comprising:
- (a) mounting means for detachably mounting the process cartridge, the process cartridge including:

an electrophotographic photosensitive member;

a developing member for supplying a developer to said the electrophotographic photosensitive member to develop an electrostatic latent image formed on said the electrophotographic photosensitive member;

a first electrode disposed opposed to said the developing member;

first electrode is disposed such that at least a lower end thereof takes a position lower than said

the first second electrode when said the process cartridge is mounted to the main assembly of the said electrophotographic image forming apparatus;

a third electrode disposed between said the second electrode and said the developing member;

a first electrical contact for receiving, from the main assembly of said electrophotographic image forming apparatus, a voltage to be applied to said first electrode when said the developing device process cartridge is mounted to the main assembly of said electrophotographic image forming apparatus;

a second electrical contact for receiving, from the main assembly of said electrophotographic image forming apparatus, a voltage to be applied to said the developing member when said the developing device process cartridge is mounted to the main assembly of said electrophotographic image forming apparatus; and

a third electrical contact for transmitting, to the main assembly of said electrophotographic image forming apparatus, an electrical signal corresponding at least to electrostatic capacities between said the first electrode and the second electrode and between said the developing member and said the third electrode, when the voltages are applied to said the first electrode and to said the developing member, to detect a remaining amount of the developer by the main assembly of the said electrophotographic image forming apparatus;

- (b) electrostatic latent image forming means for forming the electrostatic latent image on said the electrophotographic photosensitive member; and
- (c) developer amount detecting means for detecting an amount of the developer in said the process cartridge on the basis of the electrical signal transmitted from said the third electrical contact.

- 52. (Currently Amended) An apparatus according to Claim 49 or 50, wherein said the second first electrode and a frame supporting said the first second electrode constitute a recess extending parallel to said the developing member, said the recess opening downward.
  - 53. (Currently Amended) An apparatus according to Claim 49 or 50, wherein said the third electrode is a member which is integral with or separate from said the first second electrode, and is disposed along a length of said the developing member.
  - 54. (Currently Amended) An apparatus according to Claim 49 or 50, further comprising a developer chamber having an opening in which said the developing member is supported, and a developer container, connected with said developer chamber, for accommodating the developer, wherein said the first, second and third electrodes are provided in said developer chamber.
  - 55. (Currently Amended) An apparatus according to Claim 43, 44, 49 or 50, further comprising developer stirring means for stirring the developer, wherein at least said the first and second electrodes are disposed in a moving range of the developer provided by rotation of said developer stirring means.

- 57. (Twice Amended) An electrophotographic image forming apparatus for forming an image on a recording material, comprising:
  - (a) an electrophotographic photosensitive member;
- (b) an electrostatic latent image forming means for forming an electrostatic latent image on said electrophotographic photosensitive member;
- (c) a developing device for developing the electrostatic latent image formed on said electrophotographic photosensitive member, said developing device including:

a developing member for supplying a developer to said electrophotographic photosensitive member to develop the electrostatic latent image formed on said electrophotographic photosensitive member;

a first electrode provided so as to exhibit the same potential as said developing member;

a second electrode, wherein said first electrode is disposed such that at least a lower end thereof takes a position above said first second electrode when said developing device is mounted to a main assembly of the said electrophotographic image forming apparatus;

a developer path electrode disposed along a path along which the developer accommodated in a developer accommodating portion moves to said developing member;

a first electrical contact for receiving, from the main assembly of said electrophotographic image forming apparatus, a voltage to be applied to said first electrode when said developing device is mounted to the main assembly of said electrophotographic image forming apparatus;

a second electrical contact for receiving, from the main assembly of said electrophotographic image forming apparatus, a voltage to be applied to said developing member

when said developing device is mounted to the main assembly of said electrophotographic image forming apparatus; and

a third electrical contact for transmitting, to the main assembly of the said electrophotographic image forming apparatus, an electrical signal corresponding to electrostatic capacities at least between said first electrode and said second electrode and between said developing member and said developer path electrode to detect a remaining amount of the developer by the main assembly of the said electrophotographic image forming apparatus.



#### 58. (Canceled)

- 59. (Currently Amended) An electrophotographic image forming apparatus for forming an image on a recording material, wherein a process cartridge is detachably mountable to a main assembly of said electrophotographic image forming apparatus, said electrophotographic image forming apparatus comprising:
- (a) mounting means for detachably mounting the process cartridge, the process cartridge including:

an electrophotographic photosensitive member;

a developing member for supplying a developer to said the electrophotographic photosensitive member to develop an electrostatic latent image formed on said the electrophotographic photosensitive member;

a first electrode provided so as to exhibit the same potential as said the developing member;

a second electrode, wherein said first electrode is disposed such that at least a lower end thereof takes a position above said the first second electrode when said the process cartridge is mounted to the main assembly of the said electrophotographic image forming apparatus;

a developer path electrode disposed along a path along which the developer accommodated in a developer accommodating portion moves to said the developing member;

a first electrical contact for receiving, from the main assembly of said electrophotographic image forming apparatus, a voltage to be applied to said the first electrode when said developing device the process cartridge is mounted to the main assembly of said electrophotographic image forming apparatus;

a second electrical contact for receiving, from the main assembly of said electrophotographic image forming apparatus, a voltage to be applied to said the developing member when said developing device the process cartridge is mounted to the main assembly of said electrophotographic image forming apparatus; and

a third electrical contact for transmitting, to the main assembly of the said electrophotographic image forming apparatus, an electrical signal corresponding to electrostatic capacities at least between said the first electrode and said the second electrode and between said the developing member and said the developer path electrode to detect a remaining amount of the developer by the main assembly of the said electrophotographic image forming apparatus;

- (b) electrostatic latent image forming means for forming the electrostatic latent image on said the electrophotographic photosensitive member; and
- (c) developer amount detecting means for detecting an amount of the developer in said the process cartridge on the basis of the electrical signal transmitted from said the third electrical contact.
- 60. (Currently Amended) An apparatus according to Claim 57 or 59, wherein said the developer path electrode is in the form of a plate extending along the path.

- 61. (Currently Amended) An apparatus according to Claim 57 or 59, further comprising a third electrode provided between said the first second electrode and said the developing member.
- 62. (Currently Amended) An apparatus according to according to Claim 61, wherein said the third electrode is a member which is integral with or separate from said the first electrode, and is disposed along a length of said the developing member.
- 63. (Currently Amended) An apparatus according to Claim 57 or 59, wherein said the first electrode and said the second electrode are arranged along a length of said the developing member which is in the form of a developing roller.
- 64. (Currently Amended) An apparatus according to Claim 57 or 59, wherein said the second first electrode and a frame supporting said the first second electrode constitute a recess extending parallel to said the developing member, and wherein said the recess opens downward.
- 65. (Currently Amended) An apparatus according to Claim 57 or 59, further comprising an intermediary electrode between said the developing member and said the developer path electrode.
- 66. (Currently Amended) An apparatus according to Claim 57 or 59, further comprising developer stirring means for stirring the developer, wherein at least said the first electrode and said second electrode are disposed in a moving range of the developer provided by rotation of said developer stirring means.